

24-BR-6010 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Boardman et al.

Art Unit: 3641

Serial No.: 09/735,009

Examiner: R. Palabrica

Filed: December 12, 2000

For: SYSTEM AND METHODS OF

PRODUCING HYDROGEN USING A

NUCLEAR REACTOR

[]/10/02

<u>AMENDMENT</u>

Commissioner for Patents Washington, D.C. 20231

In response to the Office Action dated February 3, 2003, please amend the aboveidentified patent application as follows.

IN THE CLAIMS

1. (thrice amended) A system-for generating hydrogen comprising:

feed water;

a liquid metal nuclear reactor having a non-radioactive secondary heat loop comprising a recirculated heat transfer medium;

a steam generator connected to said secondary heat loop, said heat transfer medium and said feed water passing through said steam generator, said steam generator capable of raising the temperature of said feed water;

a high temperature water cracking system, said feed water coupled to said water cracking system by a feed water input line; and

a topping heater, said topping heater capable of raising the temperature of said feed water, said feed water input line coupled in flow communication with said steam generator, said